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What Is Claimed Is:

1. An assay apparatus, comprising:

a temperature adjusting means for simultaneously adjusting a temperature of a plurality of samples in accordance with a pre-determined temperature profile; and

a receiving means for receiving spectral emission from the samples while the temperature of the samples is adjusted in accordance with the temperature profile.

- 2. The apparatus of claim 1, wherein said receiving means receives fluorescent emission.
- 3. The apparatus of claim or 1, wherein said receiving means receives ultraviolet light.
- 4. The apparatus of claim 1, wherein said receiving means receives visible light.
- 5. The apparatus of claim 1, wherein said temperature adjusting means comprises:

a temperature adjusting element for adjusting the temperature of said heat conducting block.

6. The apparatus of claim 1, wherein said temperature adjusting means comprises:

a heat conducting block;

an adaptor disposed on said heat conducting block, wherein said adaptor is configured to receive a containing the plurality of samples; and a temperature adjusting element for adjusting the temperature of said heat

conducting block.

7. The apparatus of claim 1, further comprising: a movable platform;

wherein said temperature adjusting means comprises a heat conducting block having a plurality of wells formed therein, each of said plurality of wells configured to receive a container containing one of the plurality of samples;

wherein said movable platform is configured to receive a plurality of said heat conducting blocks; and

a temperature adjusting element for adjusting the temperature of said heat conducting block.

8. The apparatus of claim 1, further comprising: a movable platform;

wherein said temperature adjusting means comprises a heat conducting block adapted to receive a container containing the plurality of samples, wherein said movable platform is configured to receive a plurality of said heat conducting blocks; and

a temperature adjusting element for adjusting the temperature of said heat conducting block.

- 9. The apparatus of claim 8, wherein said movable platform is a translatable platform.
- 10. The apparatus of claim 8, wherein said movable platform is a rotatable platform.
- 11. The apparatus of claim 1, wherein said receiving means is configured to receive spectral emission from the plurality of samples one sample at a time.
- 12. The apparatus of claim 1, wherein said receiving means is configured to simultaneously receive spectral emission from more than one sample of the plurality of samples.

- The apparatus of claim 1, wherein said receiving means is 13. configured to simultaneously receive spectral emission from all of the plurality of samples.
- 14. The apparatus of claim 6, wherein said temperature adjusting means means further comprises:
- a temperature controller/for changing the temperature of said heat conducting block in accordance with the pre-determined temperature profile.
- 15. The apparatus of claim 7, wherein said temperature adjusting means comprises:
- a temperature controller for changing the temperature of said heat conducting block in accordance with the pre-determined temperature profile.
 - 16. The apparatus of claim 8, wherein said receiving means comprises:
- a light source for emitting an excitatory wavelength of light for the samples; and
- a sensor for detecting the spectral emission from the samples in response to the excitatory wavelength of light.
- 17. The apparatus of claim 1, wherein said receiving means comprises a photomultiplier tube.

- 18. The apparatus of claim 2, wherein said receiving means comprises a fluorescence scanner.
- 19. The apparatus of claim 2, wherein said receiving means comprises a fluorescence scanner.
- 20. The apparatus of claim 11, wherein said receiving means comprises a fluorescence scanner.
- 21. The apparatus of claim 12, wherein said receiving means comprises a fluorescence scanner.
- 22. The apparatus of claim 1, wherein said receiving means comprises a charge coupled device.
- 23. The apparatus of claim 13, wherein said receiving means comprises a fluorescence imaging camera.
- 24. The apparatus of claim 22, wherein said receiving means comprises a CCD fluorescence imaging camera.
- 25. The apparatus of claim 1, wherein said receiving means comprises a diode array.

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An assay apparatus, comprising:

a movable platform;

a plurality of heat conducting blocks disposed on said platform, wherein each of said plurality of heat conducting blocks is adapted to receive a plurality of samples;

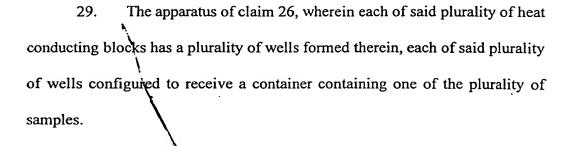
a light source for emitting an excitatory wavelength of light for the samples;

a temperature adjusting means for adjusting the temperature of said heat conducting blocks, thereby adjusting the temperature of the samples;

a sensor for detecting the spectral emission from the samples in response to the excitatory wavelength of light; and

wherein said movable platform is moved between heat conducting blocks to sequentially detect spectral emission from the samples in each of said plurality of heat conducting blocks.

- 27. The apparatus to claim 26, wherein said movable platform is a translatable platform.
- 28. The apparatus of claim 26, wherein said movable platform is a rotatable platform.



- 30. The apparatus of claim 26, wherein each of said plurality of heat conducting blocks is adapted to receive a container containing the plurality of samples.
- 31. The apparatus of claim 26 wherein said temperature adjusting means comprises:
- a temperature controller for changing the temperature of said heat conducting blocks in accordance with a pre-determined temperature profile.
- 32. The apparatus of claim 26, wherein said sensor comprises a photomultiplier tube.
- 33. The apparatus of claim 26, wherein said sensor comprises a fluorescence scanner.
- 34. The apparatus of claim 33, wherein said fluorescence scanner is configured to scan the plurality of samples one sample at a time.

- 35. The apparatus of claim 33, wherein said fluorescence scanner is configured to simultaneously scan a subset of at least two of the plurality of samples.
- 36. The apparatus of claim 33, wherein said receiving means is configured to simultaneously receive spectral emission from all of the plurality of samples.
- 37. The apparatus of claim 36, wherein said receiving means comprises a fluorescence imaging camera.
- 38. The apparatus of claim 26, wherein said sensor comprises a charge-coupled device.
- 39. The apparatus of claim 38, wherein said sensor comprises a charge-coupled device camera.
- 40. The apparatus of claim 26, wherein said sensor comprises a diode array.
- 41. The apparatus of claim 37, wherein said fluorescence imaging camera is configured to simultaneously scan all of the plurality of samples in one of said heat conducting blocks.

- The apparatus of claim 37, wherein said fluorescence imaging camera is configured to simultaneously scan all of the plurality of samples in all of said plurality heat conducting blocks.
- The apparatus of claim 39, wherein said charged coupled device camera is configured to simultaneously scan all of the plurality of samples in one of said heat conducting blocks.
- 44. The apparatus of claim 39, wherein said charge coupled device camera is configured to simultaneously scan all of the plurality of samples in all of said plurality heat conducting blocks.
- 45. The apparatus of claim 26, wherein at least one sample of the plurality of samples comprises a biological polymer.
- 46. The apparatus of claim 26, wherein at least one sample of the plurality of samples comprises a protein.
- 47. The apparatus of claim 26, wherein at least one sample of the plurality of samples comprises a nucleic acid.

- 48. The apparatus of claim 1, further comprising:
- a computer controller for controlling the operation of said temperature adjusting means
- 49. The apparatus of claim 14, wherein said temperature controller comprises a processor.
- 50. The apparatus of claim 15, wherein said temperature controller comprises a processor.
- 51. The apparatus of claim 31, wherein said temperature controller comprises a processor.
- 52. The apparatus of claim 26, wherein said temperature adjusting means independently adjusts the temperature of each of said heat conducting blocks.
- 53. An assay apparatus, comprising:

 a heating means for simultaneously heating a plurality of samples; and
 a receiving means for receiving spectral emission from the samples while
 the samples are being heated.